

ND

GenCore version 4.5  
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OM nucleic - nucleic search, using sw model

Run on: August 27, 2001, 17:59:23 ; Search time 193.18 Seconds  
(without alignments)  
2278.492 Million cell updates/sec

Title: US-09-784-340-3\_COPY\_7800\_8500

Sequence score: 701  
1 ggtgtgtgtaagtgagaaaaa.....taggattccagaaaaaatta 701

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 730101 segs, 313950809 residues

Total number of hits satisfying chosen parameters: 1460202

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database :

1: /SIDSL/gcgdata/geneseq/geneseq/NA1980.DAT:\*  
2: /SIDSL/gcgdata/geneseq/geneseq/NA1981.DAT:\*  
3: /SIDSL/gcgdata/geneseq/geneseq/NA1982.DAT:\*  
4: /SIDSL/gcgdata/geneseq/geneseq/NA1983.DAT:\*  
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8: /SIDSL/gcgdata/geneseq/geneseq/NA1987.DAT:\*  
9: /SIDSL/gcgdata/geneseq/geneseq/NA1988.DAT:\*  
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20: /SIDSL/gcgdata/geneseq/geneseq/NA1999.DAT:\*  
21: /SIDSL/gcgdata/geneseq/geneseq/NA2000.DAT:\*  
22: /SIDSL/gcgdata/geneseq/geneseq/NA2001.DAT:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	98.2	14.0	936	22	AAF58252
2	98.2	14.0	936	22	AAF58254
3	98.2	14.0	936	22	AAF58257
4	98.2	14.0	936	22	AAF58259
5	98.2	14.0	936	22	AAF58262
6	98.2	14.0	936	22	AAF58255
7	98.2	14.0	936	22	AAF58254
8	98.2	14.0	936	22	AAF58252
9	98.2	14.0	936	22	AAF58257
10	98.2	14.0	936	22	AAF58259
11	98.2	14.0	936	22	AAF58262

12	98	14.0	938	22	AAF58255	Oligonucleotide D1
13	82.6	11.8	240825	21	AAF224497	Human PG-3 gene.
14	79.8	11.4	375	21	AACT7505	Human ORFX ORF3060
15	58.2	8.3	1906	19	AAV39012	CD30 ligand gene u
16	55.8	8.0	1517	19	AAV59788	Human secreted pro
17	51.8	7.4	244	22	AAF58238	Oligonucleotide D1
18	50	7.1	244	22	AAF58238	Oligonucleotide D1
19	50	7.1	383	22	AAF64418	Novel human polynu
20	49.4	7.0	1024	21	AAZ97218	Human prostate can
21	49.4	7.0	1024	21	AAZ97219	Human prostate can
22	40.2	5.7	8133	22	AAZ32205	Arabidopsis thalia
23	39.4	5.6	4037	20	AAZ20053	plasmodium falcipa
24	38.8	5.5	3091	20	AAZ51707	DNA encoding a hum
25	37.4	5.3	5433	21	AAZ99265	Plasmodium yoelli
26	37.2	5.3	6042	21	AAZ70199	Plasmodium falcipa
27	36.6	5.2	116227	20	AAZ20248	Borrelia burgdorfe
28	36.6	5.2	910715	20	AAZ20248	Borrelia burgdorfe
29	36.2	5.2	5163	22	AAZ4658	Novel protein kina
30	35	5.0	600	20	AAV86165	EST clone J635. H
31	34.8	5.0	1355	21	AAZ87765	Human secreted pro
32	34.8	5.0	1355	22	AAZ64047	CDNA encoding huma
33	34.6	4.9	268	14	AAQ59823	Expressed Sequence
34	34.6	4.9	268	14	AAQ59823	Human brain Expres
35	34	4.9	1723	18	AAZ91745	Tobacco calcium/ca
36	34	4.9	4937	18	AAZ85307	Arabidopsis thalia
37	33.8	4.8	1676	19	AAV35312	DNA encoding 2 sta
38	33.8	4.8	1713	21	AAZ59524	Human secreted pro
39	33.8	4.8	1718	21	AAZ59525	Human secreted pro
40	33.8	4.8	2182	18	AAZ99933	Racilius subtilis
41	33.8	4.8	2281	18	AAZ99936	Human secreted pro
42	33.6	4.8	204	21	AAZ18219	Plasmodium falcipa
43	33.6	4.8	6033	21	AAZ70152	Human adenosine re
44	33.6	4.8	138169	21	AAZ4791	Human ELAM-1 polyn
45	33.6	4.8	141589	21	AAZ20913	

## ALIGNMENTS

RESULT 1	
AAF58252/c	
ID	AAF58252 standard; DNA; 936 BP.
XX	
AC	AAF58252;
XX	
DT	24-APR-2001 (first entry)
XX	
DE	Oligonucleotide D1835.
XX	
KW	Electron-transfer group; ETM; mismatch; geno <sup>t</sup> eling;
XX	gene expression; ss.
OS	Synthetic.
XX	
PN	WO200107665-A2.
XX	
PD	01-FEB-2001.
XX	
PF	26-JUL-2000; 2000WO-US20476.
XX	
PR	26-JUL-1999; 99US-0145695.
XX	
PR	17-MAR-2000; 2000US-0190259.
XX	
PA	(CLIN-) CLINICAL MICRO SENSORS INC.
XX	
PI	Umek RM;
XX	
DR	WPI; 2001-159728/16.
XX	
PT	Nucleic acids containing electron-transfer group, useful as labels in
XX	hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT	a single surface
XX	

PS Example 6; Page 127; 159pp; English.  
xy

The present invention relates to a composition comprising two nucleic acids each containing an electron-transfer group (ETM) having different redox potentials. The invention is used for electronic detection of nucleic acids, especially of substitutions (mismatches) and single-nucleotide polymorphisms, e.g. for genotyping, monitoring gene expression.

Sequence 936 BP; 4 A; 139 C; 10 G; 7 T; 776 other;

Query Match	14.0%	Score 98.2	DB 22	Length 936
Best Local Similarity	1.1%	Pred. No. 1.5e-16		
Matches	7	Conservative 404	Mismatches 252	Indels 0
				Gaps 0

QY	10	aagtgaataaacatgaggagaacttaaccacaacataaataagaaacagcttctt	69
Db	676	ww	6177
QY	70	tgaccattctagaagaagaagttcaagcatcccttgaagcgccactagaagaata	129
Db	616	ww	557
QY	130	tctctgggaaaagcacattcaacaaatgaatgagaccagaagaagatgaggatcta	189
Db	556	ww	497
QY	190	tgtgcgcaaatgttaacttgcagtcagcggtgttacctagtggtgttccatgggaact	249
Db	496	ww	437
QY	250	gtaattgtgagttaatgcgaagcagcacaaatgccatggaggactctgagactga	309
Db	436	ww	377
QY	310	gatagtcaacttggacatctgcacgaatctgaatgattcaagcccaagtagctg	369
Db	376	ww	317
QY	370	tactctggttgcctataaggtgtgtccagagagcgtgtgtaagtaaaatccctactg	429
Db	316	ww	257
QY	430	aacacattgagaagaatggaagcgtggaagatttaaacgctgtcaagttgactaaga	489
Db	256	ww	197
QY	490	cctgcttctgtagtgaataatccaattalatlttaatgcatagccagacaataaa	549
Db	196	ww	137
QY	550	ttataagaattacccaatagctatggtlaacaatactcgtggtttacttaactcagag	609
Db	136	ww	77
QY	610	tgaagaagaacccatcttccatctttagaataataccaataatccataagaag	669
Db	76	ww	17
QY	670	ttt 672	
Db	16	www 14	

## RESULT 2

ID AAF58254 standard; DNA; 936 BP.

AC AAF58254;

DT 24-APR-2001 (first entry)

DE Oligonucleotide D1875.

KW Electron-transfer group; ETM; mismatch; genotyping;  
KW gene expression; ss.  
vz

OS	Synthetic
xx	

PN W0200107665-A2.

PD 01-FEB-2001.

PF 26-JUL-2000; 2000WO-US20476

PR 26-JUL-1999; 99US-0145695

XX  
BA (CT TN-) CT TNQAT WTQBO CEVQO

PA (CLIN-) CLINICAL MICRO SENSORS INC.  
XY

PI	Umek	RM;
xx		

DR WPI; 2001-159728/16  
xx

PT Nucleic acids containing electron-transfer group, useful as labels in hybridization assays, e.g. for genotyping, allowing repeat analyses on a single surface -

PS Example 6; Page 127; 159pp; English.

The present invention relates to a composition comprising two nucleic acids each containing an electron-transfer group (ETM) having different redox potentials. The invention is used for electronic detection of nucleic acids, especially of substitutions (mismatches) and single-nucleotide polymorphisms, e.g. for genotyping, monitoring gene expression.

**SQ** Sequence 936 BP; 4 A; 144 C; 7 G; 5 T; 776 other

Query Match	14.0%;	Score 98.2;	Dis 22;	Length 936;
Best Local Similarity	1.1%;	Pred. No. 1.5e-50;		
Matches	7;	Conservative 404;	Mismatches 352;	Indels 0;
			Gaps	0

[illegible]

[illegible][illegible]

370 tttctagttgtcctatagtggtgtaccagagcagctgtgttaagtaaaatcctgactg 429

[illegible][illegible]

(CLIN-) CLINICAL MICRO SENSORS INC.

Umek RM;

WPI: 2001-159728/16.

Nucleic acids containing electron-transfer group, useful as labels in hybridization assays, e.g. for genotyping, allowing repeat analyses on a single surface

Example 6; Page 127; 159pp; English.

The present invention relates to a composition comprising two nucleic acids each containing an electron-transfer group (ETM) having different redox potentials. The invention is used for electronic detection of nucleic acids, especially of substitutions (mismatches) and single-nucleotide polymorphisms, e.g. for genotyping, monitoring gene expression.

Sequence 936 BP; 4 A; 139 C; 10 G; 7 T; 776 other;

Query Match 14.0%; Score 98; DB 22; Length 936;  
Best Local Similarity 0.7%; Pred. No. 1.7e-16;  
Matches 5; Conservative 421; Mismatches 266; Indels 0; Gaps 0;

```

OY 10 aagtgagaacatgggagaaacttaacacataataataacagaaagcttctt 69
DB 14 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 73
OY 70 tgaccatttctaagaaagagtcagatcccttgtaagccactaggaagaaat 129
DB 74 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 133
OY 130 tctctggaaagacacttcaacatgatgagaccagaagagtgaggtacta 189
DB 134 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 193
OY 190 tctgcacaaatgttaactggatccagggtgttactagtggttccatgggact 249
DB 194 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 253
OY 250 gtaattggtggttaataagcagcagacaaagtcattgagactgaaa 309
DB 254 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 313
OY 310 gatagtcacttgcatatctgcacagaatcgtatcagatcccaagttagctg 369
DB 314 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 373
OY 370 tatctagttgtctataggtgtgtaccagagagcagtggttaagtaaatcctgctg 429
DB 374 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 433
OY 430 aacacattgaggaatggaagaggtggaagatttaacggtgtcagtggttaaga 489
DB 434 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 493
OY 490 ccggtctgtatgtaaatcaactatatttaaatcatagcagacataaaa 549
DB 494 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 553
OY 550 ttataagaattacacaaatagctatgtaacaaatctggttacttactactagag 609
DB 554 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 613
OY 610 tgaagaagaaacccatcttccattttagaataataataacataaggaag 659
DB 614 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 673
OY 670 ttccagagcagtagatttccgaaaaatla 701
DB 674 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 705

```

RESULT 8

AAF58254

ID AAF58254 standard; DNA; 936 BP.

AC AAF58254;

DT 24-APR-2001 (first entry)

DE oligonucleotide D1875.

KW Electron-transfer group; ETM; mismatch; genotyping;

gene expression; ss.

OS Synthetic.

PN W0200107665-A2.

PD 01-FEB-2001.

XX 26-JUL-2000; 2000MO-US20476.

PR 26-JUL-1999; 99US-0145695.

PR 17-MAR-2000; 2000US-0190259.

PA (CLIN-) CLINICAL MICRO SENSORS INC.

Umek RM;

WPI: 2001-159728/16.

Nucleic acids containing electron-transfer group, useful as labels in hybridization assays, e.g. for genotyping, allowing repeat analyses on a single surface

Example 6; Page 127; 159pp; English.

The present invention relates to a composition comprising two nucleic acids each containing an electron-transfer group (ETM) having different redox potentials. The invention is used for electronic detection of nucleic acids, especially of substitutions (mismatches) and single-nucleotide polymorphisms, e.g. for genotyping, monitoring gene expression.

Sequence 936 BP; 4 A; 144 C; 7 G; 5 T; 776 other;

Query Match 14.0%; Score 98; DB 22; Length 936;  
Best Local Similarity 0.7%; Pred. No. 1.7e-16;  
Matches 5; Conservative 421; Mismatches 266; Indels 0; Gaps 0;

```

OY 10 aagtgagaacatgggagaaacttaacacataataataacagaaagcttctt 69
DB 14 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 73
OY 70 tgaccatttctaagaaagagtcagatcccttgtaagccactaggaagaaat 129
DB 74 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 133
OY 130 tctctggaaagacacttcaacatgatgagaccagaagagtgaggtacta 189
DB 134 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 193
OY 190 tctgcacaaatgttaactggatccagggtgttactagtggttccatgggact 249
DB 194 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 253
OY 250 gtaattggtggttaataagcagcagacaaagtcattgagactgaaa 309
DB 254 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 313
OY 310 gatagtcacttgcatatctgcacagaatcgtatcagatcccaagttagctg 369

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Db 314 ..... 373
QY 370 tatctagttgtcctataggtgtgttacccagagcagtggtgtaagtaaaactcgtcgt 429
Db 374 ..... 433
QY 430 aacacattgaggaatggaagaggtggaagatttaacggtgtcagtggtgactaga 489
Db 434 ..... 493
QY 490 cctgctctgtatggaataatcaactatactttaatgcatgacagacataaaa 549
Db 494 ..... 553
QY 550 ttataagaattaccacaatgcatgtaacatactggtttactactatacagag 609
Db 554 ..... 613
QY 610 tgaagaagaacccctcattccatttataggaataatacaaatccataagaag 669
Db 614 ..... 673
QY 670 tticagagccagtaggatttcagaaaaaata 701
Db 674 ..... 705
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## RESULT 9

AAF58257 standard; DNA; 936 BP.

AAF58257:

24-APR-2001 (first entry)

Oligonucleotide D1954.

Electron-transfer group; ETM; mismatch; genotyping;

gene expression; ss.

Synthetic.

WO200107665-A2.

01-FEB-2001.

26-JUL-2000; 2000MO-US20476.

26-JUL-1999; 99US-0145695.

17-MAR-2000; 2000US-0190259.

(CLIN-) CLINICAL MICRO SENSORS INC.

Umek RM;

WPI; 2001-159728/16.

Nucleic acids containing electron-transfer group, useful as labels in hybridization assays, e.g. for genotyping, allowing repeat analyses on a single surface

Example 6; Page 127; 159pp; English.

The present invention relates to a composition comprising two nucleic acids each containing an electron-transfer group (ETM) having

different redox potentials. The invention is used for electronic detection of nucleic acids, especially of substitutions (mismatches)

and single-nucleotide polymorphisms, e.g. for genotyping, monitoring gene expression.

Sequence 936 BP; 5 A; 142 C; 7 G; 6 T; 776 other;

Query Match 14.0%; Score 98; DB 22; Length 936;  
Best Local Similarity 0.7%; Pred. No. 1.7e-16;  
Matches 5; Conservative 421; Mismatches 266; Indels 0; Gaps 0;

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QY 10 aagtgaagaatacgtggagaacttaacccaacataaataacagaagaactctcctt 69
Db 14 ..... 73
QY 70 tgaccatttcagagaagaaggttcagcatcccttgtaagccactggaagaagaat 129
Db 74 ..... 133
QY 130 tctctggaaaagacattcaacccaatgaaatggagacaaagaagtgaggatcata 189
Db 134 ..... 193
QY 190 tctgcaaatgttaactggatccaggtgtgtactagtggttccaatggggaact 249
Db 194 ..... 253
QY 250 gtaattgtaggttaatgcaagcagcacaagttccatgagcattctgagctgaa 309
Db 254 ..... 313
QY 310 gatagtcattggcatatctgcagaatctgatagtgataagcccaagtagctg 369
Db 314 ..... 373
QY 370 tatctagttgtcctataggtgtgttacccagagcagtggtgtaagtaaaactcgtcgt 429
Db 374 ..... 433
QY 430 aacacattgaggaatggaagaggtggaagatttaacggtgtcagtggtgactaga 489
Db 434 ..... 493
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Db 494 ..... 553
QY 550 ttataagaattaccacaatgcatgtaacatactggtttactactatacagag 609
Db 554 ..... 613
QY 610 tgaagaagaacccctcattccatttataggaataatacaaatccataagaag 669
Db 614 ..... 673
QY 670 tticagagccagtaggatttcagaaaaaata 701
Db 674 ..... 705
```

## RESULT 10

AAF58259 standard; DNA; 936 BP.

AAF58259:

24-APR-2001 (first entry)

Oligonucleotide D2004.

Electron-transfer group; ETM; mismatch; genotyping;

gene expression; ss.

Synthetic.

WO200107665-A2.

01-FEB-2001.

XX

PE 26-JUL-2000; 2000WO-US20476.  
 XX  
 PR 26-JUL-1999; 99US-0145695.  
 PR 17-MAR-2000; 2000US-0190259.  
 XX  
 PA (CLIN-) CLINICAL MICRO SENSORS INC.  
 XX  
 PI Umek RM;  
 XX  
 DR WPI; 2001-159728/16.  
 XX  
 PT Nucleic acids containing electron-transfer group, useful as labels in  
 PT hybridization assays, e.g. for genotyping, allowing repeat analyses on  
 PT a single surface  
 XX  
 PS Example 6; Page 128; 159pp; English.  
 XX  
 CC The present invention relates to a composition comprising two nucleic  
 CC acids each containing an electron-transfer group (ETM) having  
 CC different redox potentials. The invention is used for electronic  
 CC detection of nucleic acids, especially of substitutions (mismatches)  
 CC and single-nucleotide polymorphisms, e.g. for genotyping,  
 CC monitoring gene expression.  
 XX  
 SO Sequence 936 BP; 6 A; 138 C; 8 G; 8 T; 776 other;

Query Match	14.0%;	Score 98;	DB 22;	Length 936;
Best Local Similarity	0.7%;	Pred. No. 1.7e-16;		
Matches	5;	Conservative 421;	Mismatches 266;	Indels 0;
			Gaps	0;

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Db      614 ..... 673  
Qy      670 ttccagacgactagatttcgaataaata 701  
        :: : : : :  
Db      674 ..... 705
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RESULT 11  
AAE58262

ID	AAF58262 standard; DNA; 936 BP.
XX	

AC AAF58262;  
YY

24-APR-2001 (first entry)

Oligonucleotide D2007.

Electron-transfer group; ETM; mismatch; genotyping;

gene expression

OS Synthetic.  
XX

PN WO200107665-  
XX

PD 01-FEB-2001.  
xy

26-JUL-2000; 2000WO-US20476.

26-JUL-1999; 99US-0145695.

1 / MAY - 2000; 200005-0190239.  
XX  
XX

PA (CLIN-) CLINICAL MICRO SENSORS INC.  
XX

PI Umek RM;  
XX

DR WPI; 2001-159728/16.  
XX

PT Nucleic acids containing electron-transfer group, useful as labels in hybridization assays or for construction of molecular recognition devices

PT a single surface

PS Example 6; Page 128; 159pp; English.

CC The present invention relates to a composition comprising two nucleic

cc acids each containing an electron-transfer group (ETM) having  
cc different redox potentials. The invention is used for electronic  
cc

cc detection of nucleic acids, especially of substitutions (mismatches),  
cc and single-nucleotide polymorphisms, e.g. for genotyping

CC monitoring gene expression.

SQ Sequence 936 BP; 5 A; 139 C; 10 G; 6 T; 776 other;

Query Match	14.0%;	Score 98;	DB 22;	Length 936;
Best Local Similarity	0.7%;	Score 10;	DB 10;	Length 10;

Matches	5; Conservative	421; Mismatches	266; Indels	0; Gaps	0;
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70 tgaacatttctagaagaaagattcaagcatcccttataagccactagcaaaagaaaaaat 120

[illegible][illegible]

134

19

150 cgcccaaaacgacacggaagggctgctacclaggttggtttccaatggggaact 24

[illegible]



QY	10	aagtgagaaacaatgaggagaacttaaccacaacataatatacagaaagctctct	69
Db	14	#####	73
QY	70	tgaccattcttagagaaagagtcagcatcccttgtaagcaccataggagaagaat	129
Db	74	#####	133
QY	130	tctctggaagaagacacttcaaccaatgaatlgagaccagaagaagagtgaggtacta	189
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Db	494	#####	553
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Db	554	#####	613
QY	610	tgaagaagaacccctacttccattttagtaataataa'caaatctcataagaag	669
Db	614	#####	673
QY	670	tttcagagccagtagatttccagaaataa	701
Db	674	#####	705

RESULT 13

AAAF24497

ID AAF24497 standard; cDNA; 240825 BP.

AC AAF24497;

DT 23-MAY-2001 (first entry)

DE Human PG-3 gene.

KW Human; PG-3; cancer; BRCA1; chromosome 8p23; ds.

OS Homo sapiens.

FT	Key	Location/Qualifiers
FT	misc-feature	1..2000
FT		/*tag= a
FT		/note= "5' regulatory region"
FT	primer_bind	1823..1840
FT		/*tag= b
FT	primer_bind	1980..1998
FT		/*tag= c
FT	misc_binding	1987..2011
FT		/*tag= d
FT	allele	/note= "binds probe"
FT		replace(1999,C)
FT	primer_bind	/*tag= e
FT		complement(2000..2018)
FT	CDS	/*tag= f
FT		2001..238825
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FT		2001..2079
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FT		/*tag= k
FT	misc_binding	4589..4613
FT		/*tag= l
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FT	primer_bind	complement(4602..4620)
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FT	exon	4627..4718
FT		/*tag= o
FT	primer_bind	/label= "B"
FT		4891..4908
FT		/*tag= p
FT	primer_bind	10007..10025
FT		/*tag= q
FT	exon	10115..10233
FT		/*tag= r
FT	primer_bind	/label= "C"
FT		10209..10227
FT		/*tag= s
FT	misc_binding	10216..10240
FT		/*tag= t
FT		/note= "binds probe"
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FT	primer_bind	complement(10229..10247)
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FT	primer_bind	10267..10285
FT		/*tag= w
FT	misc_binding	10274..10298
FT		/*tag= x
FT	allele	/note= "binds probe"
FT		replace(10286,T)
FT		/*tag= y
FT	primer_bind	complement(10287..10305)
FT		/*tag= z
FT	allele	replace(10370,)
FT		/*tag= aa
FT	primer_bind	10411..10430
FT		/*tag= ab
FT	exon	26810..26897
FT		/*tag= ac
FT	exon	/label= "D"
FT		31357..31471
FT		/*tag= ad
FT		/label= "E"
FT		
FT	exon	34261..34404
FT		/*tag= ae
FT	exon	/label= "F"
FT		37377..37466
FT		/*tag= af
FT	exon	/label= "S"
FT		39704..40858
FT		/*tag= ag
FT	primer_bind	/label= "T"
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FT	primer_bind	/*tag= ah
FT		39877..39896
FT	primer_bind	/*tag= ai
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FT	misc_binding	/*tag= aj
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FT		39953..39970
FT	primer_bind	/*tag= an
FT		39954..39972
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FT		39961..39985
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FT	primer_bind	42213..42231
FT		/*tag= be
FT	misc_binding	42220..42244
FT		/*tag= bf
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FT	allele	replace(42232,C)
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FT	primer_bind	complement(42233..42251)
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FT		/*tag= bi
FT	exon	50436..50545
FT		/*tag= bj
FT		/label= "G"

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FT /tag= bk
FT primer_bind 67456..67474
FT /tag= bl
FT misc_binding 67463..67487
FT /tag= bm
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FT primer_bind 67476..67494
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FT primer_bind 67724..67741
FT /tag= bp
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FT /tag= br
FT misc_binding 69509..69533
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FT /tag= bu
FT primer_bind 69609..69626
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FT primer_bind 72698..72715
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FT /tag= bx
FT misc_binding 72826..72850
FT /tag= by
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FT /tag= cc

Query Match 11.8%; Score 82.6; DB 22; Length 240825;
Best Local Similarity 55.8%; Pred. No. 9.8e-12;
Matches 244; Conservative 0; Mismatches 179; Indels 14; Gaps 4;

QY 141 agacattcaccaatgatgatgagacccaagaagagtgagatcatgtgccaat 200
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QY 201 gttactggatccaggggtgtacctaggtggtgttccaaatggggaacttaattgtag 260
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 70994 cttaactggggcaggcgatgttccaagcaggttctcctcaggggaattttagtggtag 71053
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QY 261 gtttaatgcagcagcaagaatgcatctgtaggcattctgaagctgaataatgtacct 320
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DB 71054 gtttaaaacagcagcatgagtttca--ggaatcacacagcaactgagagtggtccctg 71111
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QY 321 tggcata----tctgcacaatctgacagtgatccaagcccaagtagctgcatctag 376
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 71112 tggcatactccacagtcacatggtgtgtgtgtgcaaggcagccagtagactgtct 71171
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 377 tgtctctatagggtgtgtaccagagcagtggtgaagtaaaatcctgactgaacat 436
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 71172 cttagagagcgccctcaccaagaagaggtgtataagcagatccctgataccacca 71231
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QY 437 tggaggaatggaaggaggtggaagattttaacggtgtcagtgctgactgaacctct 496
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
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DB 71285 ctggtatgagaggttaactatcatcaaaatagatgccaggctatatgaactgtca 71344
QY 556 gaattaccacaatagc 572
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DB 71345 gttactcactacagtcgc 71361

RESULT 14
AAC77505/c
ID AAC77505 standard; cDNA; 375 BP.
XX
XX AAC77505;
XX
AC AAC77505;
XX
DT 08-FEB-2001 (first entry)
XX
DE Human ORFX ORF3060 polynucleotide sequence SEC ID NO:6119.
XX
XX Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;
KM vulnereary; antiparkinsonian; antiparkinsonian; neurotropic; neuroprotective;
KM anticonvulsant; osteopathic; antirheumatic; immunosuppressant; cardiant;
KM immunostimulant; thrombolytic; coagulant; vasculotropic; antidiabetic;
KM hypotensive; dermatological; immunosuppressive; antineoplastic;
KM antiviral; antibacterial; antifungal; antirheumatic; antihypertensive;
KM antianaemic; gene therapy; cancer; proliferative disorder; hypertension;
KM neurodegenerative disorder; osteoarthritis; graft vs host disease;
KM cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
KM cholesterol ester storage; systemic lupus erythematosus; infection;
KM severe combined immunodeficiency; malaria; an oluminate disorder; asthma;
KM allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
KM bone damage; cartilage damage; antineoplastic; disease; coagulation;
KM thrombosis; contraceptive; ss.

OS Homo sapiens.
XX
XX WO200058473-A2.
XX
XX 05-OCT-2000.
XX
XX 31-MAR-2000; 2000MO-US08621.
XX
XX 31-MAR-1999; 99US-0127607.
XX
XX 02-APR-1999; 99US-0127636.
XX
XX 05-APR-1999; 99US-0127728.
XX
XX 30-MAR-2000; 2000US-0540763.
XX
XX (CURA-) CURAGEN CORP.
XX
XX Shinkets RA, Leach M;
XX
XX WPI: 2000-602362/57.
XX
XX P-PSDB; AAB43296.
XX
XX Novel nucleic acids and peptides derived from open reading frame X,
XX useful for treating e.g. cancers, proliferative disorders,
XX neurodegenerative disorders and cardiovascular disease -
XX
XX Claim 5; Page 5301; 5507PP; English.
XX
XX AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
XX which represent the human ORFX open reading frames 1 to 3161. The ORFX
XX sequences have activities such as: cytostatic; hepatotropic; vulnereary;
XX antiparkinsonian; antiparkinsonian; neurotropic; neuroprotective;
XX osteopathic; anticonvulsant; antirheumatic; immunosuppressant;
XX immunostimulant; cardiant; thrombolytic; coagulant; vasculotropic;
XX antidiabetic; hypotensive; dermatological; immunosuppressive;
XX antineoplastic; antibacterial; antifungal; antirheumatic; antihypertensive;
XX antithyroid; antianaemic. The sequences can be used for determining
XX the presence of or predisposition to, or preventing or treating
XX pathological conditions associated with an ORFX-associated disorder. The
XX nucleic acids can be used to express ORFX proteins in gene therapy
XX vectors. The proteins and nucleic acids may be used to treat cancers,
XX proliferative disorders, neurodegenerative disorders, osteoarthritis,
XX graft vs host disease, cardiovascular disease, diabetes mellitus,
XX

```

CC of the cells. Vectors containing the AML genes can be used in gene  
CC therapy for treating neoplasia or autoimmune disorders such as rheumatoid  
CC arthritis. They can also be used for vaccination to produce immunity  
CC against a virus cell, bacteria, protein, fungus or neoplasia.  
XX  
SQ Sequence 1906 BP; 559 A; 447 C; 438 G; 462 T. 0 other;

Query Match	8.3%	Score 58.2;	DB 19;	Length 1906;
Best Local Similarity	75.8%;	Pred. No. 5.8e-05;		
Matches 72; Conservative	0;	Mismatches 3;	Indels 0;	Gaps 0

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476		535	
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481	aaccatcatcaagggtactaagcccggtcttcgtagatagagaataatcaacttgtataaca	1870	
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526	aatgcataagccagacaacaataataataagaatt	560	
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Search completed: August 27, 2001, 18:00:22  
Job time: 8365 sec

QY	343	atcagtg	349
Db	73	TGGGGTG	67

RESULT	15
AAV39012	
ID	AAV39012
XX	standard; DNA; 1906 BP

AC AAV39012;

DT 23-SEP-1998 (first entry)  
 VV

CD30 Ligand, gene used in the course of the invention

human; CD30 ligand; alteration; immunoreactivity; human cell; accessory molecule ligand; AMI; gene therapy; treatment; neoplasia autoimmune disorder; rheumatoid arthritis; vaccine; ss.

Homo sapiens.

PN W09826061-A2.

PD 18-JUN-1998.

08-DEC-1997; 97WO-US22740.

01-DEC-1997; 97US-0982272.  
09-DEC-1996; 96US-0033145

( BEGT ) INTY CATTONUT,

Cantwell M, Kipps TJ, Sharma S;

WPI; 1998-348521/30.

neoplasia or autoimmune disorders, e.g. rheumatoid arthritis

Disclosure; Page 114; 167pp; English.

The present sequence represents a CD30 ligand gene. The sequence is used to exemplify the method of the invention. The specification describes a method for altering the immunoreactivity of human cells which comprises introducing a gene encoding an accessory molecule (ligand (AML)) into the cells so that the AML is expressed on the surface



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